ISYS 601 Fundamentals of Business Programming
Credits 3.3 Lecture Hours.
Business Application Development using both procedural and object-oriented programming techniques; use of component based software design and development for distributed business software systems.
Prerequisite: Graduate business classification or approval of instructor.

ISYS 610 Business Data Communications
Credits 3.3 Lecture Hours.
Concepts and technology of on-line and network-based systems in business; analysis of data communication requirements, design, selection and application of network technologies including wide and local area networks, distributed processing, network architecture, and systems management and control; software simulation projects emphasized. Classification 6 students may not enroll in this course.
Prerequisites: Graduate classification.

ISYS 612 Management Information Systems
Credits 1 to 3.1 to 3 Lecture Hours.
Concepts, theories, and the strategic role of information systems as applied to business organizations; highly integrative/cross functional in nature. Classification 6 students may not enroll in this course.
Prerequisite: Enrollment is limited to MBA students.

ISYS 615 Business Database Systems
Credits 3.3 Lecture Hours.
Information processing and management involving applications and user orientation in a business environment using commercially available database management systems.
Prerequisite: Knowledge of one programming language.

ISYS 620 Systems Analysis and Design
Credits 3.3 Lecture Hours.
Methodologies, techniques, and tools for information systems analysis and design; the analysis and logical design of business processes and management information systems focusing on the systems development life cycle; techniques for logical system design.
Prerequisite: ISYS 615 or concurrent enrollment.

ISYS 622 Advanced Data Management
Credits 3.3 Lecture Hours.
Data/database management and advanced SQL techniques; issues of data security, backup and recovery, large scale databases, master data management, concurrent user data access, scalability, and policies.
Prerequisites: ISYS 615 or equivalent; graduate classification in business.

ISYS 624 Advanced Systems Analysis and Design
Credits 3.3 Lecture Hours.
Advanced topics in business systems analysis and design; alternative methodologies such as agile development, extreme programming, Rational Unified Process; Unified Modeling Language; benchmarking and best practices for systems development; cost/benefit analysis, estimation and budgeting for business information systems; testing; patterns, domain-driven design; process modeling; service-oriented architecture and cloud computing.
Prerequisite: ISYS 620 or equivalent; graduate classification in business.

ISYS 630 MIS Project Management and Implementation
Credits 3.3 Lecture Hours.
Advanced coverage of systems development topics with emphasis on the management and implementation of business computing systems; group project orientation to include feasibility analysis, alternative evaluation and selection, and management approval; use of software engineering tools where appropriate. Classification 6 students may not enroll in this class.
Prerequisite: ISYS 620.

ISYS 631 Information Systems Design and Development Project
Credits 3.3 Lecture Hours.
Design and delivery of functional, multi-platform application system using current technologies; user interface design emphasized; issues of mobile device forms, software delivery, and development.
Prerequisites: Graduation classification; ISYS 622; ISYS 630.

ISYS 635 Business Information Security
Credits 3.3 Lecture Hours.
Explores the business, managerial, and technological aspects of information security; analysis, design, and implementation issues surrounding effective information security; authentication, authorization, availability, business continuity planning, confidentiality, disaster recovery, encryption, firewalls, fraud protection, security policy development, integrity, risk management, virus protection, VPNs and wireless security. Classification 6 students may not enroll in this course.
Prerequisite: ISYS 610.

ISYS 637 Data Warehousing
Credits 3.3 Lecture Hours.
Provides an understanding of the process by which a data warehouse system is designed and developed along with the underlying concepts and software systems; includes OLAP models and their differences with standard OLTP models.
Prerequisite: ISYS 615 or approval of instructor.

ISYS 640 Information Systems Sourcing
Credits 3.3 Lecture Hours.
Identify the challenges of information systems sourcing, as well as the costs, risks, rewards, and strategies involved in sourcing situations; focus on global sourcing of professional services, including IT, business process, and knowledge process outsourcing; issues such as vendor management, legal issues, distributed work teams, and comparing alternative sourcing strategies.
Prerequisites: ISYS 624 or equivalent or approval of instructor; graduate classification in business.

ISYS 643 Corporate Information Planning
Credits 3.3 Lecture Hours.
Concepts regarding the design and use of computer-based management information and decision support systems; combinations of computing hardware and software and design concepts evaluated to meet managers’ information needs. Classification 6 students may not enroll in this course.
Prerequisites: ISYS 615 or equivalent or approval of instructor.
ISYS 645 IT Security Controls
Credits 3.3 Lecture Hours.
Familiarization with planning, design, and implementation of controls to minimize risks to business information; focus on the importance of managing business information security; introduction to the tools, concepts and theories to safeguard an organization's information systems and IT assets; understanding of cryptography and application, operations, and physical security.
Prerequisite: ISYS 635.

ISYS 646 E-Services
Credits 3.3 Lecture Hours.
Examines the deployment and utilization of information technologies by businesses, governments and not-for-profit organizations to deliver services, with applications in banking and financial advisory services, healthcare, and federal, state and local governments.
Prerequisite: ISYS 620.

ISYS 650 Business Data Mining
Credits 3.3 Lecture Hours.
Rationale for business Data Mining through case studies of business applications; process of data mining by using commercial Data Mining software on very large data sets; half of the course devoted to lab training in the use of Data Mining software including SAS Enterprise Miner and SPSS Clementine.
Prerequisite: STAT 652 or approval of instructor.

ISYS 652 Customer Relationship Management and Technologies
Credits 3.3 Lecture Hours.
Theory and application of information technology in customer relationship management, construction of CRM infrastructures in organizations.
Prerequisite: ISYS 615.

ISYS 654 E-Commerce Technologies
Credits 3.3 Lecture Hours.
Theory and application of constructing E-Commerce sites, including n-tier architecture and technologies, web servers, server interactions with databases, and transaction managers.
Prerequisite: ISYS 615 or equivalent.

ISYS 655 Security Management and Compliance
Credits 3.3 Lecture Hours.
Familiarization with managerial and legal aspects of business information security; focus on importance of managing business information security and theories to help safeguard an organization’s information systems and IT assets; understanding of Security Architecture and Design, Business Continuity and Disaster Recovery Planning, Laws Investigation and Ethics.
Prerequisite: ISYS 635.

ISYS 656 Global Information Systems
Credits 3.3 Lecture Hours.
Impact and the central role of Information Systems (IS) on globalization of business; issues of deployment of information systems and technology in international commerce, global IS environmental variables such as technology, legal, political, economic, social and cultural. Classification 6 students may not enroll in this course.
Prerequisite: ISYS 610 or equivalent, or approval of instructor.

ISYS 670 IT Consulting
Credits 3.3 Lecture Hours.
Concerns with the practice of IT consulting; and develops an understanding of consulting practices, business development and revenue management, client relationships, team-based knowledge, knowledge services, technology evaluation, selection and integration, collaboration tools, business process and organizational change, and large application implementations; involves a full semester client-based project.
Prerequisites: ISYS 615, ISYS 620, and approval of instructor.

ISYS 684 Professional Internship
Credits 1 to 6.1 to 6 Other Hours.
A directed internship in an organization to provide students with on-the-job training with professionals in organizational settings appropriate to the student's professional objectives. May be repeated for credit. Classification 6 students may not enroll in this course.
Prerequisite: Approval of committee chair and department head.

ISYS 685 Directed Studies
Credits 1 to 4.1 to 4 Other Hours.
Directed study on selected problems using recent developments in business research methods. Classification 6 students may not enroll in this course.
Prerequisite: Approval of instructor and graduate advisor.

ISYS 686 Theory and Research in Management Information Systems
Credits 3.3 Lecture Hours.
Theory, applications and human and organizational issues of Management Information Systems (MIS); current academic research into the analysis, design and implementation of computer information systems. Classification 6 students may not enroll in this course.
Prerequisites: Doctoral classification and approval of instructor.

ISYS 689 Special Topics in...
Credits 1 to 4.1 to 4 Lecture Hours.0 to 4 Lab Hours.
Selected topics in identified area of information systems, operations management or management science. Classification 6 students may not enroll in this course. May be repeated for credit.